

REMARKS

The last Office Action has been carefully considered.

It has been noted that claims 1-5 are rejected under 35 U.S.C. 102 (b) over the patent to Voitglander.

The drawings, the disclosure and the abstract of the disclosure are objected to and the claims are rejected under 35 U.S.C. 112.

In connection with the Examiner's formal objections and rejections, applicants have amended the specification, the abstract of the disclosure and the claims in compliance with the Examiner's requirements and submitted Figure 1 which has been amended as required.

After carefully considering the Examiner's grounds for the rejection of the claims over the art, applicants have canceled claim 1 and submitted two new independent claims 12 and 13. Claims 2-5 have been amended to depend on claim 12.

It is respectfully submitted that the new features of the present

invention which are now defined in these claims clearly and patentably distinguish the present invention from the prior art applied by the Examiner. Also, the claims are drafted in accordance with the Examiner's comments in the Office Action.

In order to better understand the subject matter of the present invention the following explanation is submitted herewith. A spur-toothed wheel 11 for a worm gear comprises a first wheel disk 12 and at least one second wheel 13, 14. These wheel disks 12, 13 and 14 need not be integral. For example they can be fixed on a shaft one behind the other. However the wheel disks are adjacent (or adjoining if they are integral) so that each is in contact with one or two adjacent or adjoining wheel disk(s) at a mutual interface or boundary face 15. Each of the wheel disks 12, 13 and 14 has a peripheral or circumferential tooth face that is carrying a plurality of first, second and third teeth respectively. The number of first, second and third teeth on each tooth face is identical.

In order to be able to mesh with the helical gearing of the worm of the first, second and third teeth on the tooth faces of the wheel disks are all disposed in the form of helical gearings and in such a way that they mate in pairs at said interface(s). In order to increase the contact area between

the helical gearings of the worm 5 and the spur-toothed wheel 11, the peripheral or circumferential tooth faces of the wheel disks 12, 13 and 14 partly surround the worm 5. In order to achieve this, if there are altogether two wheel disks 12 and 13 the tooth faces of both wheel disks are either generally frustoconical and converging towards the interface or boundary face between the two wheel disks (not shown), or one tooth face is generally cylindrical and the other is generally frustoconical and converging towards the interface or boundary face 15 of the two wheel disks 12, 13 as shown in Fig. 3 of the specification. If there are altogether three wheel disks 12, 13, 14 and the tooth face of the central wheel disk 12 is preferably cylindrical and the tooth faces of the outer wheel disks 13, 14 are each frustoconical and converging towards their mutual interface or boundary face 15 with the central wheel disk 12.

Thus, it is believed that the Examiner's questions raised in paragraph 8 should be considered as clarified.

As for the Examiner's rejection of the claims over the patent to Voigtlander it is therefore believed to be clear that the new features of the present invention which are defined in claim 12 clearly and patentably distinguish the present invention from the prior art applied by the Examiner.

As for the second independent claim 13, this claim defines worm gear, comprising a worm (5) and a spur-toothed wheel (11). It additionally distinguishes the subject matter of the invention from Voigtlander, et al which does not disclose a worm gear at all.

It is therefore believed that claim 13 should also be considered as clearly and patentably distinguish the present invention from the prior art applied by the Examiner against the original claims.

Reconsideration and allowance of the present application is most respectfully requested.

Should the Examiner require or consider it advisable that the specification, claims and/or drawings be further amended or corrected in formal respects in order to place this case in condition for final allowance, then it is respectfully requested that such amendments or corrections be carried out by Examiner's Amendment, and the case be passed to issue. Alternatively, should the Examiner feel that a personal discussion might be helpful in advancing this case to allowance, he is invited to telephone the undersigned (at 631-549-4700).

Respectfully submitted,



Michael J. Striker  
Attorney for Applicants  
Reg. No. 27233